WHAT IS CLAIMED IS:

1. A nucleic acid comprising a sequence capable of hybridizing under stringent conditions to a sequence set forth in SEQ ID NO:1 to 999, or a fragment thereof.

2. A vector comprising the nucleic acid of Claim 1.

3. The vector of Claim 2, wherein said vector comprises regulatory elements for expression, operably linked to said sequence.

4. A polypeptide encoded by the nucleic acid of Claim 1.

5. A nucleic acid comprising: an ATG start codon; an optional intervening sequence; a coding sequence capable of hybridizing under stringent conditions as set forth in SEQ ID NO:1 to 999; and an optional terminal sequence, wherein at least one of said optional sequences is present, and wherein:

ATG is a start codon;

said intervening sequence comprises one or more codons in-frame with said coding sequence, and is free of in-frame stop codons; and

said terminal sequence comprises one or more codons in-frame with said coding sequence, and a terminal stop codon.

6. The nucleic acid of Claim 5, wherein said nucleic acid is expressed in *Arabidopsis thaliana*.

7. The nucleic acid of Claim 5, wherein said nucleic acid encodes a plant protein.

8. The nucleic acid of Claim 7, wherein said plant is a dicot.

9. The nucleic acid of Claim 8, wherein said dicot is *Arabidopsis thaliana*.

10. The nucleic acid of Claim 7, wherein said plant protein is a naturally occurring plant protein.

11. The nucleic acid of Claim 7, wherein said plant protein is a genetically modified plant protein.

12. The nucleic acid of Claim 5, wherein said nucleic acid encodes a fusion protein comprising an *Arabidopsis thaliana* protein and a fusion partner.

13. The nucleic acid of Claim 5, wherein said nucleic acid encodes a fusion protein comprising a plant protein and a fusion partner.

14. A transgenic plant comprising an exogenous nucleic acid, wherein said nucleic acid comprises transcription regulatory sequences operably linked to a sequence capable of hybridizing under stringent conditions to a sequence set forth in SEQ ID NO:1 to 999 or a fragment thereof, wherein said sequence is expressed in cells of said plant.

15. The transgenic plant of Claim 14, wherein said plant is regenerated from transformed embryogenic tissue.

16. The transgenic plant of Claim 14, wherein said plant is a progeny of one or more subsequent generations from transformed embryogenic tissue.

17. The transgenic plant of Claim 14, wherein said sequence capable of hybridizing under stringent conditions to a sequence set forth in SEQ ID NO:1 to 999 encodes a plant protein.

18. The transgenic plant of Claim 14, wherein said plant protein is a naturally occurring plant protein.

19. The transgenic plant of Claim 14, wherein said plant protein is a genetically altered plant protein.

20. The transgenic plant of Claim 14, wherein said sequence expressed in cells of said plant is an anti-sense sequence.

21. The transgenic plant of Claim 14, wherein said sequence expressed in cells of said plant is a sense sequence.

22. The transgenic plant of Claim 14, wherein said sequence is selectively expressed in specific tissues of said plant.

23. The transgenic plant of Claim 14, wherein said specific tissue is selected from the group consisting of leaves, stems, roots, flowers, tissues, epicotyls, meristems, hypocotyls, cotyledons, pollen, ovaries, cells, and protoplasts.

24. A genetically modified cell, comprising an exogenous nucleic acid, wherein said nucleic acid comprises transcription regulatory sequences operably linked to a sequence capable of hybridizing under stringent conditions to a sequence set forth in SEQ ID NO:1 to 999, wherein said sequence is expressed in cells of said plant.

25. A method of screening a candidate agent for its biological effect; the method comprising:

combining said candidate agent with one of:

a genetically modified cell according to Claim 24, a transgenic plant according to Claim 14, or a polypeptide according to Claim 4; and

determining the effect of said candidate agent on said plant, cell or polypeptide.

26. A nucleic acid array comprising at least one nucleic acid as set forth in SEQ ID NO:1-999 stably bound to a solid support.

27. An array comprising at least one polypeptide encoded by a nucleic acid as set forth in SEQ ID NO:1-999, stably bound to a solid support.